



## UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
[www.uspto.gov](http://www.uspto.gov)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/537,717	12/06/2007	Gottfried Beer	INFMN-046	5024
5073	7590	06/23/2008		
BAKER BOTTS L.L.P. 2001 ROSS AVENUE SUITE 600 DALLAS, TX 75201-2980			EXAMINER PING, CHARLIE YU	
			ART UNIT 2883	PAPER NUMBER
			NOTIFICATION DATE 06/23/2008	DELIVERY MODE ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

[ptomail1@bakerbotts.com](mailto:ptomail1@bakerbotts.com)  
[glenda.orrantia@bakerbotts.com](mailto:glenda.orrantia@bakerbotts.com)

<b>Office Action Summary</b>	<b>Application No.</b> 10/537,717	<b>Applicant(s)</b> BEER ET AL.
	<b>Examiner</b> CHARLIE PENG	<b>Art Unit</b> 2883

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
  - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
  - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED. (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on \_\_\_\_\_.
- 2a) This action is FINAL.      2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 1-20 is/are pending in the application.
  - 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) Claim(s) \_\_\_\_ is/are allowed.
- 6) Claim(s) 1-8 and 10-20 is/are rejected.
- 7) Claim(s) 9 is/are objected to.
- 8) Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on 03 June 2005 is/are: a) accepted or b) objected to by the Examiner.
 

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) All    b) Some \* c) None of:
    1. Certified copies of the priority documents have been received.
    2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- 1) Notice of References Cited (PTO-892)
- 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) Information Disclosure Statement(s) (PTO-1449)  
Paper No(s)/Mail Date 06/03/2005
- 4) Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) Notice of Informal Patent Application
- 6) Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Information Disclosure Statement***

1. The information disclosure statement filed 03 June 2005 fails to comply with 37 CFR 1.98(a)(2), which requires a legible copy of each cited foreign patent document; each non-patent literature publication or that portion which caused it to be listed; and all other information or that portion which caused it to be listed. It has been placed in the application file, but the information referred to therein has not been considered.

### ***Claim Objections***

2. Claims 11, 14, and 17-20 are objected to under 37 CFR 1.75(c) as being in improper form because a multiple dependent claim should refer to other claims in alternate forms only, and "at least one of the preceding claims" may refer to multiple claims. See MPEP § 608.01(n).

### ***Claim Rejections - 35 USC § 112***

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.
4. Claims 1, 13 and 14 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The phrase "and/or" is inherently indefinite since it fails to clarify whether subject matters disclosed are to be taken in combination or in alternate.

### ***Claim Rejections - 35 USC § 102***

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

Art Unit: 2883

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 1, 4, 5, 8, and 11-14 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent 5,400,419 to Heinen. Heinen teaches a bidirectional optical transmission and reception module comprising at least one transmitter component 6; at least one receiver component 7; a spherical lens 10 for coupling light to a fiber 9; the transmitter, receiver components, the lens on a top side of a substrate 1, and a planar optical circuit including integrated waveguides 41, 42 on a bottom side of the substrate 1; wherein light from the transmitter 6 is coupled into the waveguides of the planar optical circuit, and is coupled out from the waveguides of the planar optical circuit onto the receiver 7. (See at least Fig. 1 and description.)

7. With reference to claim 5, the lens 10 is place near an end of waveguides 41, 42 as denoted by a mirror 5.

8. With specific reference to claim 8, see mirrors 5 and a monitoring diode 8.

9. With specific reference to claims 13 and 14, Heinen teaches that the optical module "can be integrated in a module housing with a simple surface mounting such as is used for infrared diodes, and can be connected to the optical fiber 9 in a known way."

***Claim Rejections - 35 USC § 103***

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Art Unit: 2883

11. Claims 2 and 3 are rejected under 35 U.S.C. 103(a) as being unpatentable over Heinen as applied to claim 1 above and further in view of U.S. Patent 4,875,750 to Spaeth et al. Heinen teaches the optical module as discussed above but does not show the parts for mounting the spherical lens 10. Spaeth teaches mounting a spherical lens 1 in an inverted and truncated pyramid cutout 3 in an optoelectronic coupling element. It would have been obvious to one skilled in the art to modify Heinen's invention by using the cutout as suggested by Spaeth to mount the spherical lens 10 for that it allows the lens to be mounted very accurately at a precisely defined position.

12. Claims 6, 7, 18 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Heinen.

13. With specific reference to claims 6 and 18, using an index matching material in interfacial regions between optical components is a very well known technique in the art and would be quite obvious for one skilled in the art to practice in order to reduce losses in the interfacial regions.

14. With specific reference to claim 7, Heinen refers to using a Fresnel lens, which generally provides the same function as a planoconvex lens.

15. With specific reference to claim 19, mere duplication of essential working parts already disclosed without providing new and unexpected results involves only routine skill in the art. *In re Harza*, 124 USPQ 378.

16. Claims 10 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Heinen as applied to claim 1 above and further in view of U.S. Patent 4,969,712 to Westwood et al. Heinen teaches the optical module with mirrors for reflecting light signals but not wavelength selective mirrors. Using a dichroic mirror or filter at an end

Art Unit: 2883

of a waveguide to select optical signals by wavelengths is known in the art and described by Westwood as illustrated in Fig. 2, reference numeral 290. It would have been obvious to one skilled in the art to modify Heinen's invention by including dichroic mirrors for one of many different purposes such as preventing transmission or creating an optical splitter.

17. Claims 15-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Heinen as applied to claim 1 above and further in view of DE 4422322 to ANT Nachrichtentechnik. Heinen teaches the optical module having a housing for receiving an optical fiber but not a plug receptacle. Such designs are well known in the art and as discussed by the '322 reference, (Page 5, lines 6-23), it would have been obvious to one skilled in the art to appropriately modify Heinen's invention in order to reduce coupling losses.

***Allowable Subject Matter***

18. Claim 9 objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to CHARLIE PENG whose telephone number is (571)272-2177. The examiner can normally be reached on 9 am - 6 pm M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Frank G. Font can be reached on (571) 272-2415. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2883

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/CHARLIE PENG/  
Patent Examiner, Art Unit 2883

06/18/2008